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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,628

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Tatsuo Yokoi

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EXAMINER

YEE, DEBORAH

ART UNIT

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1793

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,628	Applicant(s) YOKOI ET AL.	
	Examiner Deborah Yee	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Applicant's election of group I, claims 1 to 4 and 10 in the reply filed on November 26, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 5 to 9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Response to Arguments

3. Applicant's arguments with respect to claims 1 to 4 and 10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 to 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 408157957 (Kashima et al.).

6. The English abstract of Kashima et al. discloses a hot rolled steel plate having a composition with constituents whose wt% ranges overlap those recited by the claims; such overlap in wt% ranges establishes a prima facie case of obviousness since it would be obvious for one skilled in the art to select the claimed alloy wt% ranges over the broader disclosure of the

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prior art because the prior art teaches the same utility (automotive components) and similar properties of high tensile strength $\geq 600 \text{ N/mm}^2$ and critical bore-expanding ratio $\lambda \geq 90\%$.

7. More specifically, prior art examples in Table 1 on page 6 closely approximate the claimed composition and equations. Note for example, steel G, meets claimed composition except for the absence of N, Cr and Mo, and when calculated, satisfies the claimed equations. Although small amounts of N, Cr, and Mo are not included, such elements would be obvious to incorporate since they are broadly taught as alloying constituents in prior art's disclosure. In addition, Kashima et al does not teach the equations recited by the claims but this would not be a patentable distinction since it has been held that there is no invention in the discovery of a general formula if it covers a composition in the prior art.

8. Moreover, the steel of Kashima et al has a microstructure comprising predominately bainitic ferrite. Although the additional phase of bainite as recited by the claim is not taught by the prior art, such would be expected since composition and process of making is closely met. Note similar to the present invention, prior art process comprises the steps of hot rolling with a finishing temperature of $\geq \text{Ar3-50}$ (overlaps inventive range of $\geq \text{Ar3+30C}$) followed by rapid cooling at 30 to 100C/sec (overlaps inventive rate of 50C sec or more) to a coiling temperature of 400 to 750C (overlaps 350 to 650C).

9. Also it should be noted that the presence of bainite does not appear to be critical for the present invention in view of lines 25-29 on page 8 of Applicant's specification, which states that "The microstructure of the steel sheet is preferably a single phase of ferrite to secure superior burring. However, in accordance with need, the inclusion of some bainite is allowed, but to

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secure good burring, a volume fraction of 10% or less is preferable.” Hence claims would not patentably distinguish over prior art.

10. In regard to claims 2 and 3, prior art steel contains Nb, Ca, Cu and Ni in wt% ranges that overlap and suggest those recited by the claims. Moreover REM and B are conventional steel additives well known in the metallurgical art to further enhance mechanical properties and would be a matter of choice well within the skill of the artisan to incorporate to prior art steel.

11. Even though prior art does not teach zinc coating steel sheet as recited by claim 4, such would be obvious to incorporate since it is a conventional practice to galvanize steel to improve corrosion resistance for automotive components.

12. Even though a hot rolled steel sheet not including carbides inside ferrite laths and between ferrite laths other than Ti and Nb carbides as recited by claim 10 is not taught by prior art, such would be expected since composition and process of making are closely met, and in absence of proof to the contrary.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/
Primary Examiner
Art Unit 1793

/DY/